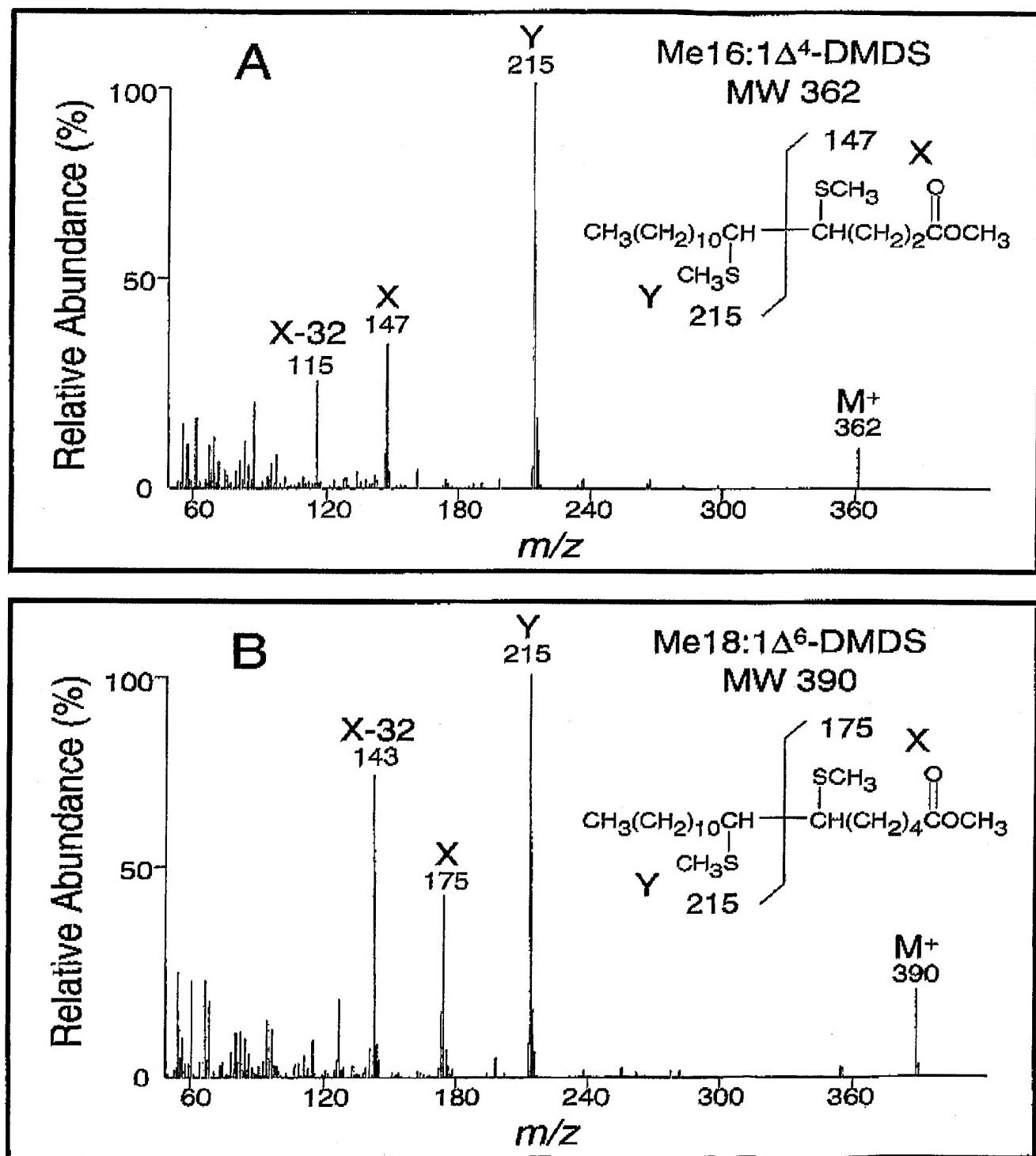


APPENDIX A



SEP. 10 '2003 14:00 8921026

CROP GENETICS IPM GROUP

#6636 P.012

APPENDIX B

```

#NEXUS
[!Alignment of:]
[Sequence Start End Sequencetype]
[SEQ ID NO 6 (1 > 137) PROTEIN]
[SEQ ID NO 2 (1 > 394) PROTEIN]
[417819 (1 > 385) PROTEIN]
[A47245 (1 > 385) PROTEIN]

begin data;
dimensions ntax=4 nchar=398;
format datatype=Protein interleave gap=- missing='.';
matrix

SEQ ID NO 6 MA-----SVTASSISFTSI--ASSLKQ
SEQ ID NO 2 MALKLN---FOCKKNHPAAFAKSPLPVTRVSSPRVFMASTVNSNSMVLNLKSPPNLQV
417819 MAMKLNALMILQCPKRN--MFTRIAPPQAGRVRSKVSMASTLHASPLVFDKLKAGR---
A47245 MAMKLNALMILQCPKRN--MFTRIAPPQAGRVRSKVSMASTLHASPLVFDKLKAGR---

SEQ ID NO 6 NQGLAKSSSISL--SVNG-----KSFRS---
SEQ ID NO 2 THSMPPQKLEIFKSLDDWARRNNVLLHLKSVEKSWQPQDYLDPDV$DGFEQVRELRRERAK
417819 -----PEVDDELNSLEGWARDNILVHLKSVENSWQPQDYLDPPTSDAFEDQVKEMRERAK
A47245 -----PEVDDELNSLEGWARDNILVHLKSVENSWQPQDYLDPPTSDAFEDQVKEMRERAK

SEQ ID NO 6 -----
SEQ ID NO 2 EIPDDYFVVLVGDMITEEALPTYMSMLNRCDGIKDETGAEPSAWAMWTRAWTAEEENRHD
417819 DIPDEYFVVLVGDMITEEALPTYMSMLNRCDGIKDDTGAQPTSWATWTRAWTAEEENRHD
A47245 DIPDEYFVVLVGDMITEEALPTYMSMLNRCDGIKDDTGAQPTSWATWTRAWTAEEENRHD

SEQ ID NO 6 -----LRLLSAPLRFRVSCAAKPAT-----
SEQ ID NO 2 LLINKYLYLSGRVDMRKJIEKTIQYLIGSGMDIKSENSPVLGFYTSFQERATFISHANTAK
417819 LLINKYLYLSGRVDMRMIEKTIQYLIGSGMDTKTENCPCMGMFIYTSFQERATFISHANTAK
A47245 LLINKYLYLSGRVDMRMIEKTIQYLIGSGMDTKTENCPCMGMFIYTSFQERATFISHANTAK

SEQ ID NO 6 -----VDKVC-----ETVRKQLALPAD
SEQ ID NO 2 LAQHYGDKNLAHCGSIASDEKRHATAYTKIVEKLAEIFPDPTTVIAFADMMRKKITMPAH
417819 LAQHYGDKNLAQVCGNIASDEKRHATAYTKIVEKLAEIFPDPTTVIAFSDMMRKKIQMPAH
A47245 LAQHYGDKNLAQVCGNIASDEKRHATAYTKIVEKLAEIFPDPTTVIAFSDMMRKKIQMPAH

SEQ ID NO 6 SAVTGESK----FAALGAD----SLDTVEIVMGLEEEF----GISVEEESAQT-IA
SEQ ID NO 2 LMYDGSDDELLFKHFTAVAQRVXVYSALDYCDILEFLVDKWNVERLTGLSDEGRKAQEYVC
417819 AMYDGSDDMLFKHFTAVAQQIGVYSAWDYCDIIDFLVDKWNVAKMTGLSGEGRKAQEYVC
A47245 AMYDGSDDMLFKHFTAVAQQIGVYSAWDYCDIIDFLVDKWNVAKMTGLSGEGRKAQEYVC

SEQ ID NO 6 TVQDAADLIEKLVEKKE-----
SEQ ID NO 2 ELGPKIRRVEEKVQGKEKKKAEHFPVSFSWIFNRELKI
417819 SLAAKIRRVEEKVQGKEKK--AVLPVAFSWIFNRQIII
A47245 SLAAKIRRVEEKVQGKEKK--AVLPVAFSWIFNRQIII

```

Pair Distances of Untitled ClustalV (PAM250)

Percent Similarity in upper triangle

Percent Divergence in lower triangle

| | SEQ ID NO 6 | SEQ ID NO 2 | 417819 | A47245 | |
|-------------|-------------|-------------|--------|--------|-------------|
| SEQ ID NO 6 | *** | 14.6 | 14.6 | 14.6 | SEQ ID NO 6 |
| SEQ ID NO 2 | 232.0 | *** | 73.8 | 73.8 | SEQ ID NO 2 |
| 417819 | 191.3 | 26.6 | *** | 100.0 | 417819 |